CLAIMS

What is claimed is:

1.   A system that facilitates data exchange with industrial devices *via* a standard database connection, comprising:

 a mapping component that represents data stored within an industrial device as a database table; and,

 an interface component that provides access to the database table *via* the standard database connection.

2.   The system of claim 1, the standard database connection is a Java DataBase Connectivity (JDBC) connection.

3.   The system of claim 1, the database table is a relational database table.

4.   The system of claim 1, the industrial device data is retrieved from a data structure, the elements of the data structure are mapped to respective record columns of the database table.

5.   The system of claim 1, the database table is accessed *via* one or more remote systems that employ disparate operating systems.

6.   The system of claim 5, the disparate operating systems include one or more of UNIX, HPUX, IBM, AIX, Linux and Microsoft.

7.   The system of claim 1, the access includes read and write access.

8.   The system of claim 1, the data stored in the database table is transferred between the industrial device and a remote system as a binary file.

9.   The system of claim 1, the interface component facilitates discovery of industrial device data and the database table.

10.   An industrial control device that enables access to data stored therein *via* a standard database connection, comprising:

an interface that facilitates reading from and writing to one or more relational database tables stored within the industrial control device; and

a transformation component that maps one or more data structures associated with the industrial control device to the one or more relational database tables.

11.   The system of claim 10, the transformation component is executed within one of a module of the industrial control device, a host computer, and the interface.

12.   The system of claim 10, the transformation component is executed without knowledge of industrial device data layout.

13.   The system of claim 10, the one or more relational database table are concurrently accessed for at least one of transaction commitment, transaction rollback and transaction termination.

14.   The system of claim 10, the standard database connection is employed to establish a connection with the interface by a remote device.

15.   The system of claim 14, the standard database connection is an SQL-compliant connection.

16.   The system of claim 14, the standard database connection is a Java DataBase Connectivity (JDBC) connection.

17.   The system of claim 16 further comprise utilizing a JDBC Open or Select command(s) is utilized to read data from the one or more database tables and a JDBC Post command(s) is utilized to write data to the one or more database tables.

18.   The system of claim 10 further comprises an intelligence component that facilitates mapping, reading and writing the industrial device data.

19.   A method that facilitates access to industrial devices data *via* a standard database connection, comprising:

      retrieving industrial device data;

      generating at least one database table;

      mapping the industrial device data to the at least one database table; and

      providing access to the data in the at least one database table *via* a Java DataBase Connectivity (JDBC) connection.

20.   The method of claim 19 further comprises automatically updating the at least one database table when industrial control data changes.

21.   The method of claim 19 further comprises utilizing intelligence to facilitate generating and mapping data to the at least one database table.

22.   The method of claim 19 further comprises enabling access to the data *via* disparate operating systems including one or more UNIX, HPUX, IBM, AIX, Linux and Microsoft.

23.   A method for accessing industrial devices data, comprising:

      establishing a connection with an industrial device *via* an SQL-compliant database connection;

      discovering relational database tables stored within the industrial device; and

      accessing the data within the relational database tables.

24.   The method of claim 23, the SQL-compliant database connection is a Java DatasBase Connectivity (JDBC) connection.

25.   The method of claim 23, accessing data includes one of committing a transaction, rolling back a transaction and aborting a transaction.

26.   The method of claim 23 further comprises utilizing intelligence to facilitate accessing the data in the relational database tables.

27.   The method of claim 23 further comprises transferring data as compact binary packets.

28.   The method of claim 23 further comprises concurrently accessing more than one of the relational databases.

29.   A system that enables access to database tables associated with industrial devices, comprising:
        means for opening a database connection with the industrial device;
        means for mapping data from at least one data structure to at least one database table;
        means for discovering the at least one database table; and
        means for accessing the discovered database tables.